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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/025,800 | 12/26/2001 | Heeyoung Jung | P67470US0 | 5969 |

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MAYER, BROWN, ROWE & MAW LLP
1909 K STREET, N.W.
WASHINGTON, DC 20006

| EXAMINER | |
|---|---|
| LEE, PHILIP C | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2154 | |

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/025,800 | JUNG ET AL. | |
| | Examiner | Art Unit | |
| | Philip C. Lee | 2154 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *14 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. This action is responsive to the amendment and remarks filed on November 14, 2005.

2. Claims 1-8 are presented for examination.

3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

*Claim Rejections – 35 USC 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-2, 4-5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Agrawal et al, U.S. Patent Application Publication 2004/0024901 (hereinafter Agrawal).

7. Agrawal was cited in the last office action.

8. As per claim 1, Agrawal taught the invention as claimed for managing a mobility service in Internet protocol networks, comprising:

a gateway means for managing interfacing with Internet and location information of a mobile host (page 5, paragraphs 54-55; fig. 2);

a transfer means with a plurality of nodes and a switching function, for connecting the gateway means with the mobile host (page 6, paragraph 70-page 7, paragraph 72), where each of the nodes (e.g. 250, 260) includes a plurality of base stations (page 5,paragraphs 52 and 57) and where the plurality of nodes are arranged such that there is a hierarchical structure between the plurality of nodes (fig. 1, page 5, paragraph 53); and

a storage means for storing the location information of the mobile host (page 5, paragraph 55).

9. As per claim 2, Agrawal taught the invention as claimed in claim 1 above. Agrawal further taught wherein the gateway means manages the interfacing with Internet and the storage means for managing the location information of the mobile host (page 5, paragraph 55), and adds additional header data to packet data received for the data transmission to the mobile host,

wherein the additional header data represents the location information of the mobile host (page 6, paragraph 70).

10. As per claim 4, Agrawal taught the invention as claimed in claim 2 above. Agrawal further taught wherein the mobile host interfaces with the base station via a wireless network, transmits location registration message to the base station when the mobile host enters into a new domain, and transmits location update message when it moves to a new node within the domain (page 6, paragraph 63).

11. As per claims 5 and 7, Agrawal taught the invention as claimed for managing a mobility service in Internet protocol networks, the method comprising:

receiving a location registration message of a location update message, which is generated responsive to a mobile host (page 5, paragraph 61), through a node (page 5, paragraph 52; page 6, paragraph 63), where the node are arranged such that there is a hierarchical structure between the node and a plurality of other nodes (fig. 1, page 5, paragraph 53);

storing the received location registration message or the received location update message in a database (page 5, paragraphs 65-68); and

transferring a packet to the location of the mobile host contained in the location registration message or the location update message, through the node having the hierarchical architecture (page 6, paragraph 70-page 7, paragraph 72).

*Claim Rejections – 35 USC 103*

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 3, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal in view of "Official Notice".

14. As per claim 3, Agrawal taught the invention as claimed in claim 2 above. Although Agrawal taught wherein the transfer means having the plurality of hierarchical nodes (page 5, paragraphs 52 and 57) and the switching function transmit domain identification and identification of a base station (page 6, paragraph 66), however, Agrawal did not teach periodically broadcasts through a beacon. "Official Notice" is taken for the concept of periodically broadcasts through a beacon is known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include periodically broadcasts through a beacon because by doing so it would increase the alertness of Agrawal's system by providing notification to a mobile user regarding its location.

15. As per claims 6 and 8, Agrawal taught the invention as claimed in claims 5 and 7 above. Although Agrawal taught wherein the location registration message or the location update message includes an identification of the base station in which the user is located (page 5, paragraphs 55 and 60), however, Agrawal did not teach including an identification of a user. "Official Notice" is taken for the concept of including an identification of a user in the location registration message or the location update message is known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include an identification of a user in the location registration message or the location update message because by doing it would increase the efficiency of Agrawal's system by allowing registration information to be stored with the identification of a user in the database.

## CONCLUSION

16. Applicant's arguments with respect to claims 1-8, filed 11/14/05, have been fully considered but are not deemed to be persuasive.

17. Because Applicants have failed to challenge any of the Examiner's "Official Notices" stated in the previous office action in a proper and reasonably manner, they are now considered as admitted prior art. See MPEP 2144.03

18. In the remark applicant argued that

(1) Agrawal does not disclose a hierarchical structure between nodes as recited in claim 1.

19. In response to point (1), Agrawal taught transition of a mobile node from a cell 40 (i.e. base station) to another cell 40 within the same subnet as micro-mobility. Agrawal further taught transition of a mobile node from one subnet 30 (i.e. node) to another subnet 30 within the same domain as macro-mobility. In the case of micro-mobility, communication between cells (i.e. base stations) form one layer of the hierarchical structure, and in the case of macro-mobility, communication between subnets (i.e. nodes) form a second layer of the hierarchical structure. Thus, Agrawal taught a hierarchical structure between nodes (fig. 1; page 5, paragraph 53)

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pelech et al, U.S. Patent 6,243,585, disclosed a wireless telecommunications network with a hierarchical structure.

Jabbari et al, U.S. Patent Application Publication 20020105922, disclosed a hierarchical architecture between nodes.

Lagneborg et al, U.S. Patent 6,529,734, disclosed a hierarchical structure between nodes that comprises plurality of base stations.

21. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Lee whose telephone number is (571)272-3967. The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every other Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

P.L.

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100